

Systems Engineer

Location: Ellicott City, Maryland (Hybrid)

Department: Engineering / Networking & Embedded Systems

Employment Type: Full-Time

About Tolero Networks

Tolero Networks enables secure, resilient communications from the most remote locations on Earth to the far reaches of the solar system. We build technologies that facilitate cooperative resource sharing across terrestrial and extraterrestrial networks.

We are seeking a **Systems Engineer** to support the development of the Tolero Overlay Networking Router. In this role, you will join a collaborative group of space and networking specialists dedicated to advancing mission-critical communications. You will help define end-to-end networking architectures, translate high-level operational concepts into clear system specifications, develop system Interface Control Documents (ICDs), work with the engineering teams implementing your system vision.

Key Responsibilities

- **Architecture & Requirements Definition:** Contribute to the systems-level definition of the Tolero router, including writing and maintaining system requirements, functional decompositions, system description documents, and lexicons.
- **Interface Specification:** Identify external system interfaces and document them through comprehensive Interface Control Documents (ICDs).
- **Technical Presentation:** Prepare and present system design materials at bi-annual technical reviews to communicate Tolero's engineering roadmap to external stakeholders and customers.
- **Cross-Functional Collaboration:** Partner with embedded software, firmware, and protocol engineering teams to ensure end-to-end product implementation aligns with overall system architecture.
- **Standards Alignment:** Collaborate with technical specialists across working groups and standards bodies—such as the Internet Engineering Task Force (IETF) and the Consultative Committee for Space Data Systems (CCSDS)—to integrate emerging standards into Tolero products.

- **Culture & Ownership:** Cultivate a technical environment that encourages creative problem-solving, high-quality standards, collaboration, and team ownership of complex engineering products.

Required Qualifications

- **Education:** Bachelor's degree in Systems Engineering, Aerospace Engineering, Computer Science, Software Engineering, or a related technical field (or equivalent practical experience).
- **Experience:** 5+ years of experience in space systems engineering, network engineering, or related embedded systems development.
- **Technical Skills:** Strong analytical and problem-solving skills with demonstrated ability in logical and physical system decomposition.
- **Communication:** Proven written and verbal communication skills, including experience presenting technical concepts to clients, working groups, or external partners.
- **Soft Skills:** Self-motivated and collaborative with strong interpersonal skills and a track record of taking initiative and seeing projects through to completion.

Preferred Qualifications

- Master's degree in Space Systems Engineering, Computer Networking, or a related field.
- Familiarity with Delay/Disruption-Tolerant Networking (DTN) concepts and protocols, including **Bundle Protocol (RFC 9171)**, **BPSec (RFC 9172)**, and network management.
- Experience with spacecraft payload integration, onboard data systems, or spaceflight communications subsystems.
- Experience authoring or executing successful proposals related to operational concepts, networking architectures, or spacecraft operations.
- Demonstrated ability to build technical consensus among diverse stakeholders.
- Ability and willingness to obtain a Top-Secret level security clearance. This includes being subject to a government security clearance investigation and meeting the requirements for access to classified information. Eligibility requirements include U.S. citizenship.

Why Build the Future with Tolero?

At Tolero Networks, solving the toughest communications challenges—from remote terrestrial environments to interplanetary space—requires brilliant minds working seamlessly together. We cultivate an open, purposeful environment where curiosity is celebrated, ego is left at the door, and cross-disciplinary collaboration fuels our most complex achievements.

If you are a smart, proactive problem solver who thrives in a supportive team culture and gets energized by the idea of building the networking infrastructure that connects our world to the solar system, Tolero is where you belong. Join us, and help pioneer the future of resilient, solar-system-wide communications.

Benefits

Tolero offers a generous, comprehensive benefits package designed to support our team members and their families:

- **Compensation & Equity:** Competitive base salary, performance bonuses, and company equity opportunities.
- **Health & Wellness:** Comprehensive medical, dental, and vision plans, plus Flexible Spending Accounts (FSAs).
- **Financial Security:** Retirement plans with Tolero contributions, life insurance, and short- and long-term disability coverage.
- **Work-Life Balance:** Generous paid time off (PTO) to ensure rest and recharge.

Equal Opportunity Employer Statement

Tolero is an Equal Opportunity Employer. We celebrate diversity and are committed to creating an inclusive environment for all employees. We do not discriminate based on race, color, religion, sex (including pregnancy, gender identity, and sexual orientation), national origin, age, disability status, genetic information, protected veteran status, or any other characteristic protected by law. Qualified applicants from all backgrounds are encouraged to apply.